

Fig. 5. *Miojapyx americanus*, new genus and species; ventral view of postero-lateral aspect of abdominal sternum I.

Fig. 6. *Miojapyx americanus*, new genus and species; dorsal view of right arm of forceps.

Fig. 7. *Japyx turneri*, new species; dorsal view of posterior part of tenth abdominal segment and the forceps.

THE GENUS *ECTECEPHALA* IN NORTH AMERICA (DIPTERA, CHLOROPIDAE).¹

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The genus *Ectecephala* Macquart, originally founded for the North American species *Ectecephala albistylum* Macquart, appears to represent a Neotropical element or derivative in the fauna of the Eastern United States. Approximately 25 specific names are available in the genus, of which seven names are Nearctic and fall within the scope of the present paper. If we follow Malloch's implication (1938, Proc. Linn. Soc. N.S. Wales, LXIII, p. 337) and limit the genus to those species possessing hairs on the posterior portion of the mesopleura, the genus *Ectecephala* s. str. in North America will contain *albistylum* Macq., *laticornis* Coq., *sulcifrons* Coq., and *sulcata* Sabrosky, new species.

The North American species referred to in the literature as *Ectecephala capillata* (Coq.) (See Becker, 1912, Ann. Mus. Nat. Hung., X, p. 71; Sabrosky, 1935, Trans. Amer. Ent. Soc., LXI, p. 235; and Brimley, 1938, Insects of North Carolina, p. 387) was found to be *Chlorops unicolor* Loew. The type of Coquillett's species is from Nicaragua, and I propose to restrict the use of *capillata* to that form; the paratypes from Georgia and North Carolina should be referred to *C. unicolor*. From the type in the Naturhistorisches Museum at Vienna I find that *Ectecephala similis* Becker is also a synonym of *unicolor*. In both *unicolor* and *capillata* Coq. s. str., as well as in several Neotropical forms described as *Ectecephala*, the mesopleura is glabrous, entirely lacking the fine hairs possessed by the geno-

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type and its related species. Decision as to whether these deserve separate generic or subgeneric recognition will best be held in abeyance until a complete generic revision of the Chloropinae can be completed, and until the Neotropical species can be thoroughly studied. For the sake of reference, the synonymy and distribution of *unicolor* is as follows:

Chlorops unicolor Loew. 1863. Berl. Ent. Zeit., VII, p. 51. (Cent. III, No. 93). (Miss.)

= *Chlorops capillata* Coquillett, in part. 1904. Proc. Ent. Soc. Wash., VI, p. 98. (Paratypes, Ga. and N. C.)

= *Ectecephala capillata* Coquillett of authors (North American records).

= *Ectecephala similis* Becker. 1912. Ann. Mus. Nat. Hung., X, p. 72. (North America). New synonym.

DISTRIBUTION: *Alabama*: Prattsville (Kans. Univ.). *Arkansas*: Fayetteville (Ark. Univ.) and Polk Co. (Kans. Univ.). *Florida*: Gainesville (Univ. Mich. Mus. Zool.) and "Florida" (Purdue Univ.). *Georgia*: Spring Creek in Decatur Co. (Cornell Univ.). *Illinois*: Ashley, DuBois, Havana, Meredosia (Ill. Nat. Hist. Surv.). *Indiana*: Crawford Co. (Purdue Univ.) and Daviess Co. (U. S. Nat. Mus.). *Kansas*: Manhattan (Kans. State Coll., and Sabrosky Colln.) and Stafford Co. (Sabrosky Colln.). *Louisiana*: Lake Charles (Sabrosky Colln.), Opelousas (Hough Colln., Field Museum), Red River Parish (Kans. Univ.) and Winnfield (Univ. Mich. Mus. Zool.). *New York*: Long Island (Mus. Roy. Hist. Nat. Belgique). *North Carolina*: Raleigh (N. C. Dept. Agr.). *Oklahoma*: Broken Bow (Oklah. A & M Coll.) and Le Flore Co. (Kans. Univ.). *Texas*: Cameron Co. (Kans. Univ.) and Houston (Sabrosky Colln.).

KEY TO THE NORTH AMERICAN SPECIES OF ECTECEPHALA S. STR.
(mesopleura with hairs.)

1. Frontal triangle with a distinct, deep median sulcus, extending from the median ocellus nearly to the apex of the triangle.....2
- Triangle not sulcate.....3
2. Large species (4-5 mm.); darker species, with black mesonotal stripes and several black spots on the pleura; clypeus shining black
sulcifrons Coq.
- Smaller species (3¼-3½ mm.); paler species, with yellow ground color and deep yellow to reddish mesonotal stripes, a broad reddish stripe extending from the humerus across the upper half of each pleuron and along the venter of the abdomen; clypeus reddish yellow.....*sulcata* Sabrosky, new species.
3. Palpi yellow; third antennal segment elongate and narrowed apically, about twice as long as its greatest breadth.....*albistylum* Macq.
- Palpi black; third antennal segment shorter, not narrowed apically, about 1½ times as long as broad*laticornis* Coq.

***Ectecephala albistylum* Macq.**

Ectecephala albistylum Macquart. 1850. Dipt. Exot., Suppl., IV, (2), p. 280. (North America.)

Ectecephala laevifrons Becker. 1912. Ann. Mus. Nat. Hung., X, p. 153. New synonym, in part (North America).

Becker described *E. laevifrons* in his monograph of Neotropical Chloropidae, from Paraguay and Argentina, with a mention of specimens from Kansas and Texas. The North American specimens appear to be only dark examples of typical *albistylum*, but the name *laevifrons* may still be retained for the South American form.

Albistylum is the genotype of *Ectecephala* Macquart (monobasic).

DISTRIBUTION: eastern United States, New Jersey to Colorado, Texas and Florida. *Arkansas*: Fayetteville (Ark. Univ.) and Washington Co. (Kans. State Coll.). *Colorado*: Crowley (M. T. James). *District of Columbia*: Washington (U. S. Nat. Mus.). *Florida*: Hilliard (Kans. Univ.) and Orlando (U. S. Nat. Mus.). *Illinois*: Algonquin and Danville (U. S. Nat. Mus.), Champaign Co. (Canad. Nat. Colln.), Chicago (A. L. Melander Colln.), Urbana (Amer. Mus. Nat. Hist.); Alto Pass, Dongola, DuBois, Havana, and Meredosia (Ill. Nat. Hist. Surv.). *Indiana*: East Chicago (Field Museum), and Lafayette (U. S. Nat. Mus., and Canad. Nat. Colln.). *Iowa*: Sioux City (Univ. Minn.), and Des Moines, Makaska, and Muscatine Counties (Iowa Wesleyan Coll.). *Kansas*: Published records of nearly 100 specimens from eleven counties (Sabrosky, 1936, Trans. Amer. Ent. Soc., LXI, p. 236), also Baldwin and Lawrence (U. S. Nat. Mus.). *Maryland*: Plummer's Island (U. S. Nat. Mus.). *Michigan*: South Haven and Shelby (Sabrosky Colln.). Cass Lake (Geo. Steyskal), East Lansing (H. E. Milliron). *Minnesota*: Anoka and Scott Counties, and North Branch (Univ. Minn.). *Mississippi*: Shuqualak (Kans. Univ.). *Missouri*: Atherton (Purdue Univ.), Atherton and Kansas City (Ark. Univ.). *Nebraska*: Cambridge (Mus. Comp. Zool., Harvard), Fremont (Cornell Univ.), and "Neb." (U. S. Nat. Mus.). *New Jersey*: Trenton (Acad. Nat. Sci. Phila.). *North Carolina*: Raleigh and Blantyre (N. C. Dept. Agr.). *Pennsylvania*: "Pa." (U. S. Nat. Mus.) and Harrisburg (Mus. Comp. Zool. Harvard; also a published record by Walton, 1911, Ent. News, XXII, p. 321). *South Dakota*: Elk Point, bred from *Cenchrus* sp. (U. S. Nat. Mus.); Elk Point, Springfield, and Yankton (S. Dak. State Coll.). *Tennessee*: Knoxville (U. S. Nat. Mus.). *Texas*: College Station (Texas A & M Coll.); Eastland, Jackson, Jim Wells, and Victoria Counties (Kans. Univ.); Cibolo River at Sutherland Springs (Sabrosky Colln.); Victoria, Cuero, and Dallas (U. S. Nat. Mus.). *Virginia*: Falls Church and Great Falls (Mus. Comp. Zool., Harvard); Veitch, Mathias Point, and Difficult Run (U. S. Nat. Mus.).

Etecephala laticornis Coq.

Etecephala laticornis Coquillett. 1910. Canad. Ent. XLII, p. 46. (Colo., Ga., N. C.)

A well-marked species, of whose identity there has been no question.

DISTRIBUTION: Eastern United States, New York to Colorado and Georgia. *Colorado*: Ft. Collins (Colo. State College, and U. S. Nat. Mus.). *Georgia*: paratype (U. S. Nat. Mus.). *Kansas*: Published records from eleven counties (Sabrosky, 1936, op. cit., p. 235). *New York*: Babylon (F. S. Blanton). *North Carolina*: paratype (record repeated by Brimley, 1938, "Insects of North Carolina"). *South Dakota*: Canton, Springfield, Waubay, and Winner (S. Dak. State Coll.).

Etecephala sulcifrons Coq.

Etecephala sulcifrons Coquillett. 1910. Canad. Ent., XLII, p. 46. (Kansas.)

Other than the type series (two specimens, Arkansas City and Kinsley, Kansas), no specimens have been seen which could positively be associated with *sulfifrons*. Specimens from Turkey Creek and the Santa Rita Mts., Arizona (Kans. Univ.) are very close and probably represent the species.

Etecephala sulcata Sabrosky, new species.

Yellow species with reddish triangle, mesonotum, and dorsum of abdomen.

♂, ♀. Head pale yellow, face and cheeks whitish, front deep yellow, browned laterally near the bases of the antennae, ocellar tubercle black, frontal triangle with a broad red stripe on each side extending forward from the base nearly to the apex, the stripes merging on the lower $2/5$ or more of the triangle, leaving only the apex and a small triangular area surrounding the ocelli yellow. Two narrow red lines extend ventrad on the occiput from the basal angles of the triangle and join a broad red transverse band which reaches from eye to eye midway on the occiput. Apical $2/5$ to half of the third antennal segment black, the antennae otherwise yellow, basal segments slightly darkened and the arista white. Palpi pale yellow, clypeus and proboscis deep yellow. Front slightly wider than an eye, and projecting slightly but distinctly beyond the anterior margin of the eyes. Triangle long and moderately narrow, at its base distinctly separated from the eyes, the acute apex reaching the anterior margin of the front; moderately convex above the flatness of the front, a distinct median sulcus extending from the median ocellus about $3/4$ the length of the triangle. Eyes apparently bare, but under high magnification with short sparse hairs; longest diameter of eyes slightly oblique. Height of cheeks subequal to the breadth of the third antennal segment and less than $1/3$ the height of the eyes. Face receding in profile, the vibrissal angle obtuse and rounded. Oral opening small, palpi weak, proboscis short and fleshy. Antennae porrect, second segment slightly elongate, the third segment nearly $1\frac{1}{2}$ times as long as wide, slightly concave dorsally. The arista appears thick and white because of dense short

hairs, the basal segment enlarged. Bristles black but short and inconspicuous; the usual inner and outer verticals, proclinate divergent ocellars, and strongly proclinate, parallel postverticals. The red lateral stripes of the triangle each with two rows (sometimes as three irregular rows) of black hairs set in fine punctures, leaving the yellow central area smooth and glabrous. The few weak fronto-orbital and frontal hairs are brown and inconspicuous, as are the pale vibrissae and hairs along the lower margin of the cheeks.

Thorax: notum reddish, broadly pollinose on the dorsocentral lines and between the humeri and the wing bases, giving the appearance of three broad shining stripes and two shining supra-alar vittulae, the median stripe abbreviated posteriorly by the pollinose posterior slope of the mesonotum. Scutellum triangular, apically rounded, the disk reddened. Pleura bright yellow, each pleuron with a broad red stripe extending across the lower half of the humerus, upper half of the mesopleura, most of the pteropleura, and except for a slight break at the base of the halteres, continuing as an equally broad red stripe along the ventral margin of the tergites to the apex of the abdomen. Sternopleural spot orange, inconspicuous. Metanotum orange, subshining but thinly covered with bright pollen. Thoracic bristles black, slender: 1 humeral, 1 + 2 notopleural, 1 postalar, 1 posterior dorsocentral, and 1 subapical and 1 apical pairs of scutellars. Notum and disk of scutellum rather thickly beset with short dark hairs, each set in a fine puncture. Mesopleura with a few pale hairs near the upper posterior margin.

Dorsum of the abdomen dark reddish to brown, distal margins of the posterior segments narrowly yellow in some specimens. Sides of the abdomen yellow, appearing as a broad yellow stripe between the dark dorsum and the narrow red stripe along the ventral margins of the tergites. Venter membranous, yellow. The numerous hairs are dark and short.

Legs entirely bright yellow, with black claws.

Wings hyaline, not browned, veins brown and strong except for the ultimate section of the fourth vein. Second costal sector distinctly longer than the third sector ($1\frac{1}{4}$ – $1\frac{1}{2}$ times), the third longer than the fourth sector. Third and fourth veins divergent from their bases, the third vein practically straight. Fore cross-vein as a rule enters the discal cell slightly but distinctly distad the middle of the cell. Knob of halteres cream-white, the pedicel brown.

Length, 3.25–3.5 mm.

KNOWN DISTRIBUTION: Eastern and east central United States.

Holotype, ♂, Lafayette, Indiana, Aug. 5 (J. M. Aldrich). Allotype, same locality, Sept. 9, 1916 (J. M. Aldrich). Type and allotype in the United States National Museum. 49 paratypes: *Arkansas*: 2 ♀, Fayetteville, July 3 and 5, 1906 (Ark. Univ.). *District of Columbia*: 1 ♀ (?), Bennings, June 14 (J. M. Aldrich) (U. S. Nat. Mus.). *Illinois*: 1 ♀, Bluffs, Aug. 19, 1917; 4 ♀, Dubois, Aug. 8 and 9, 1917; 1 ♀, Urbana, June 18, 1915 (on flowers of dogwood) (Ill. Nat. Hist. Surv.). *Indiana*: 7 ♂, 10 ♀, Lafayette, various dates, June 27 to Sept. 9, 1914 to 1918 (J. M. Aldrich) (U. S. Nat. Mus.); 1 ♀, Daviess Co., Aug. 8,

1938 (M. C. Reeves) (U. S. Nat. Mus.); 1 ♂, Crawford Co., Sept. 30, 1934 (Purdue Univ.). *Iowa*: 1 ♂, Muscatine Co., June 14, 1936 (B. Berger) (Iowa Wesleyan Coll.). *Kansas*: 1 ♀, Douglas Co. (F. H. Snow) (Snow Colln., Kansas Univ); 1 ♂, Lawrence, June (E. S. Tucker; at twilight) (Hine Colln., Ohio State Univ.). *Louisiana*: 1 ♀, Opelousas, April, 1897 (Hough Colln., Field Museum); 1 ♂, Tallulah, July 15, 1925 (R. H. Painter). *Michigan*: 1, Detroit, June 19, 1938 (Geo. Steyskal). *Mississippi*: 1 ♀, Lincoln Co., May 27, 1938 (W. F. Turner) (U. S. Nat. Mus.). *Missouri*: 6 ♂, 4 ♀, Atherton, May 21, to June 18, 1922 (C. F. Adams) (Purdue Univ.). *Ohio*: 1 ♂, 2 ♀, Columbus, May 28, June 5, 1925 (R. H. Painter) (Painter, Sabrosky Colln.). *Tennessee*: 1 ♀, Knoxville, May 21, 1891 (H. E. Summers) (U. S. Nat. Mus.)

Except for the sulcate triangle, the species is superficially similar to *Chlorops unicolor*, but the latter has no hairs on the mesopleura, the antennae are slightly less elongate, and the third and fourth veins are more divergent. The resemblance is sometimes quite marked, because *unicolor* frequently has a median reddish streak on the triangle in the same position as the median sulcus, and with a similar appearance under low magnification. In the structure of the triangle and antennae, presence of mesopleural hairs, and general structure of the body, *sulcata* is most closely related to *E. laticornis* Coq., from which it differs by yellow palpi, lighter body color, and smaller average size.

SOME EARLY BUTTERFLY RECORDS FROM GEORGIA.

By AUSTIN H. CLARK AND LEILA F. CLARK.

Mr. Herbert S. Barber has been so kind as to call our attention to photostat copies of the eleven catalogues of public sales of insects published by Johann Karl Megerle [von Mühlfeld] (1765-1840) in Vienna from 1801 to 1805, which were procured for the library of the United States Department of Agriculture by the late Dr. Walter Horn of Berlin-Dahlem.

The first two catalogues include no names of North American butterflies, but beginning with the catalogue for the sale scheduled for November 9, 1802, the names of many southern species are mentioned.

In the few cases in which a definite habitat is given it is "Georg[ia]." Presumably all these specimens came from Georgia, whence they were sent to Herr Megerle by John Abbot, at that time a resident of Jacksonborough, county seat of Scriven (now Screven) County, situated on Beaver Dam creek near its junction with Brier creek. Jacksonborough was